Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] What is claimed is:

1.A method for reducing tracking error offset in an optical disc drive comprising the following steps:

(a)extracting a value proportional to a tracking error offset in a tracking error signal;

(b)scaling the output of step (a) to match the scaling applied to the amplified tracking error signal; and

(c)subtracting the output of step (b) from the tracking error signal.

[c2] 2.The method of claim 1, wherein the output of step (a) is derived from an objective lens drive signal.

[c3] 3. The method of claim 1, wherein the scaling factor of step (b) is calculated by dividing an output of a tracking compensator by an input of the tracking compensator.

[c4] 4. The method of claim 3, wherein the values of tracking compensator output and tracking compensator input are average values determined during a predetermined movement of an objective lens.

[c5] 5.The method of claim 1, wherein the scaling factor used in step (b) is recalculated whenever a disc to be played

back/written to is changed.

[c6] 6.The method of claim 1, wherein the tracking error signal is derived from a single beam optical pick-up head.

[c7] 7.An optical disc drive tracking servo circuit comprising:
a photo-detector connected to an operational amplifier;
a tracking compensator connected to an objective lens actuator; and
a tracking error corrector connected between an output end of the operational amplifier, an input end of the tracking compensator, and an output end of the tracking compensator, the tracking error corrector comprising an offset extractor for extracting a value proportional to a tracking error offset in a tracking error signal, the offset extractor being connected to a scaling amplifier for scaling the output of the offset extractor to match the scaling applied to the amplified tracking error signal, the scaling amplifier being connected to a summing amplifier for subtracting an output of the scaling amplifier from an output of the operational amplifier.

[c8] 8. The optical disc drive tracking servo circuit of claim 7, wherein the offset extractor is a low pass filter.

[c9] 9.The optical disc drive tracking servo circuit of claim 7, wherein some or all of the electronic circuits are imple-

mented in programmable devices.

[c10] 10. The optical disc drive tracking servo circuit of claim 7, wherein a scaling factor of the scaling amplifier is derived from dividing an output of the tracking compensator by an input of the tracking compensator.

[c11] 11.The optical disc drive tracking servo circuit of claim 7, wherein an optical pick-up head from which a tracking error signal is derived, is of a single beam type.

[c12] 12.A method for reducing tracking error offset in an optical disc drive comprising the following steps:
(a)extracting a value proportional to a tracking error offset in a tracking error signal from an objective lens drive signal;
(b)scaling the output of step (a) to match scaling applied to the amplified tracking error signal by a factor derived from dividing an output of a tracking compensator by an input of the tracking compensator; and
(c)subtracting an output of step (b) from the tracking error signal.

[c13] 13.The method of claim 12, wherein the scaling factor used in step (b) is recalculated whenever a disc to be played back/written to is changed.

[c14] 14. The method of claim 12, wherein values of the track-

ing compensator output and tracking compensator input are average values determined during a predetermined movement of an objective lens.

[c15] 15.The method of claim 14, wherein the scaling factor used in step (b) is recalculated whenever a disc to be played back/written to is changed.

[c16] 16.The method of claim 12, wherein the tracking error signal is derived from a single beam optical pick-up head.